

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

July 12, 2016

Mrs. Erica Glenn Principal Carrie Gosch Elementary School 455 E 148th St. East Chicago, IN 46312

Subject:

U.S. Smelter and Lead Refinery Inc., Site, East Chicago, IN

Soil Sample Results 455 E 148th St.

Dear Mrs. Erica Glenn:

As you may recall, soil from your property was tested for lead and arsenic in Spring 2015. This letter reports the lead and arsenic results for the soil samples collected from your property. The sampling results show that lead and/or arsenic concentrations in soils at a portion of your property exceed health-based standards, and therefore your property qualifies for a cleanup of those soils which pose a risk. The cleanup of those soils will be done at **NO COST** to you.

Soil testing results for your property are shown in the table below. Samples were taken from 0 to 6 inches, 6 to 12 inches, 12 to 18 inches, 18 to 24 inches, and in some cases 24 to 30 inches. Cleanup levels are 400 milligrams per kilogram (mg/kg) for lead and 26 mg/kg for arsenic. The results for your property show that levels of lead and/or arsenic in surface soils are below cleanup levels and do not pose a risk to students, but concentrations of lead in some soils at depth are above cleanup levels at your property and require cleanup. EPA does not expect students to readily have contact with those contaminated soils at depth.

Depth	QA – Lead (mg/kg)	QA - Arsenic (mg/kg)	QB – Lead (mg/kg)	QB – Arsenic (mg/kg)
0-6 inches	75	8	48	ND
6-12 inches	73	11	48	ND
12-18 inches	58	ND	91	ND
18-24 inches	44	ND	80	ND
24-30 inches	56	ND	449	24

Mrs. Erica Glenn Page 2

Depth	QC – Lead (mg/kg)	QC – Arsenic (mg/kg)	QD – Lead (mg/kg)	QD – Arsenic (mg/kg)
0-6 inches	350	11	72	ND
6-12 inches	230	8	85	ND
12-18 inches	215	ND ND	39	ND
18-24 inches	810	11	Refusal (NS)	Refusal (NS)
24-30 inches	220	ND	Refusal (NS)	Refusal (NS)

Depth	Front – Lead (mg/kg)	Front – Arsenic (mg/kg)
0-6 inches	74	ND
6-12 inches	47	ND
12-18 inches	Native Sand (NS)	Native Sand (NS)
18-24 inches	Native Sand (NS)	Native Sand (NS)
24-30 inches	Native Sand (NS)	Native Sand (NS)

Depth	West Field NW – Lead (mg/kg)	West Field NW – Arsenic (mg/kg)	West Field NE – Lead (mg/kg)	West Field NE – Arsenic (mg/kg)
0-6 inches	88	5	120	5
6-12 inches	69	4	162	7
12-18 inches	46	3	159	6
18-24 inches	28	3	132	5
24-30 inches	Native Sand (NS)	Native Sand (NS)	Native Sand (NS)	Native Sand (NS)

Depth	West Field SE – Lead (mg/kg)	West Field SE – Arsenic (mg/kg)	West Field SW – Lead (mg/kg)	West Field SW – Arsenic (mg/kg)
0-6 inches	106	7	145	6
6-12 inches	107	10	98	6
12-18 inches	80	11	131	9
18-24 inches	68	7	46	8
24-30 inches	Native Sand (NS)	Native Sand (NS)	Native Sand (NS)	Native Sand (NS)

Notes: ND = not detected. NS = No sample collected because of native sand or sampling refusal.

Mrs. Erica Glenn Page 3

The timing for the cleanup of your property depends on a number of factors. EPA will notify you once it has developed a schedule for future work. Soils above cleanup levels will be excavated up to a maximum depth of 24 inches. Before beginning any cleanup work, representatives of EPA will meet with you to go over the details of the specific cleanup plan for your property; document the conditions of the yard, house, and foundation using videos and/or photographs; discuss any of your concerns; and take an inventory of features such as landscaping, plants, bushes, decks, and patios.

The actual cleanup will involve the following steps:

- 1. Pre-cleanup interview with property owner/documentation of existing conditions (as mentioned above)
- 2. Excavate contaminated soils
- 3. Backfill with clean soil
- 4. Restore landscaping and grass
- 5. Post-construction interview with property owner

For the cleanup to be as effective as possible, please wait to do major construction or landscaping activities in the areas with elevated levels until after the cleanup is complete at your property. Activities such as bringing in fill, building a new patio or walkway, or other changes that disturb the soil may keep us from removing and safely disposing of all the contamination because it may be in a different place than when we sampled. If it is necessary for you to make changes like these, please contact me before starting those activities.

The attached sheets explain the effects of lead and arsenic and how to avoid exposure. Children are more sensitive to health effects from lead and arsenic than adults. To ensure the health and safety of children, the Agency for Toxic Substances and Disease Registry, or ATSDR, advises parents to prevent children from playing in dirt, to wash their children's toys regularly and to wash their children's hands after they play outside. All residents should remove shoes before walking into their homes. ATSDR also recommends that residents in the West Calumet Housing Complex not dig or garden in their yards.

Please be aware that if you live in housing built before 1978, you may be exposed to other sources of lead including paint and plumbing. Children aged six years and younger are particularly at risk. Blood lead testing is the only way to tell if a person has been exposed to high amounts of lead. The East Chicago Health Department offers **FREE** testing for children. To schedule a test, call the East Chicago Health Department at 219-391-8467. The health department is located at 100 W Chicago Ave East Chicago, Indiana.

Mrs. Erica Glenn Page 4

Thank you for your patience and cooperation. If you have any questions or would like to discuss your soil sampling results, please contact me at Berkoff.Michael@EPA.gov or 800-621-8431, extension 3-8983, weekdays. If I am unavailable, my colleague Janet Pope, Community Involvement Coordinator, may be able to help you; she can be reached at Pope.Janet@EPA.gov or 800-621-8431, extension3-0628.

Sincerely,

Michael Berkoff

EPA Remedial Project Manager



SOIL SAMPLING RESULTS

455 E 148th St.

Depth	QA – Lead (mg/kg)	QA – Arsenic (mg/kg)	QB – Lead (mg/kg)	QB – Arsenic (mg/kg)
0-6 inches	75	8	48	ND
6-12 inches	73	11	48	ND
12-18 inches	58	ND ND	91	ND
18-24 inches	44	ND	80	ND
24-30 inches	56	ND	449	24

Depth	QC - Lead (mg/kg)	QC – Arsenic (mg/kg)	QD – Lead (mg/kg)	QD – Arsenic (mg/kg)
0-6 inches	350	11	72	ND
6-12 inches	230	8	85	ND
12-18 inches	215	ND	39	ND
18-24 inches	810	11	Refusal (NS)	Refusal (NS)
24-30 inches	220	ND	Refusal (NS)	Refusal (NS)

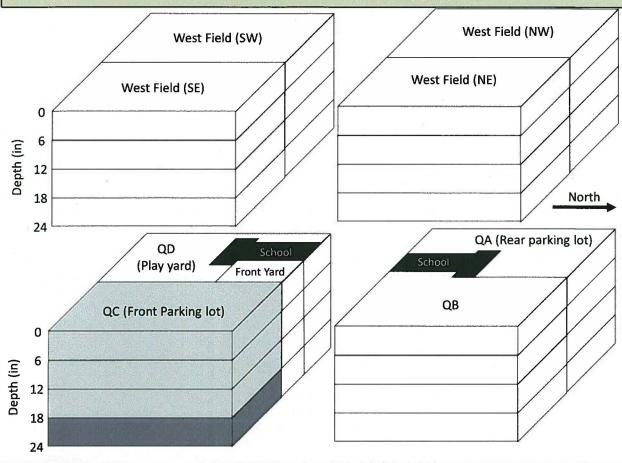
Depth	Front – Lead (mg/kg)	Front – Arsenic (mg/kg)
0-6 inches	74	ND
6-12 inches	47	ND
12-18 inches	Native Sand (NS)	Native Sand (NS)
18-24 inches	Native Sand (NS)	Native Sand (NS)
24-30 inches	Native Sand (NS)	Native Sand (NS)

Notes: ND = not detected. NS = No sample collected because of native sand or sampling refusal.

Depth	West Field NW – Lead (mg/kg)	West Field NW – Arsenic (mg/kg)	West Field NE – Lead (mg/kg)	West Field NE – Arsenic (mg/kg)
0-6 inches	88	5	120	5
6-12 inches	69	4	162	7
12-18 inches	46	3	159	6
18-24 inches	28	3	132	5
24-30 inches	Native Sand (NS)	Native Sand (NS)	Native Sand (NS)	Native Sand (NS)

Depth	West Field SE - Lead (mg/kg)	West Field SE - Arsenic (mg/kg)	West Field SW – Lead (mg/kg)	West Field SW – Arsenic (mg/kg)
0-6 inches	106	7	145	6
6-12 inches	107	10	98	6
12-18 inches	80	11	131	9
18-24 inches	68	7	46	8
24-30 inches	Native Sand (NS)	Native Sand (NS)	Native Sand (NS)	Native Sand (NS)

Soils will be removed from your property because sampling results showed lead concentrations above 400 mg/kg or arsenic concentrations above 26 mg/kg.



Contaminated Soil Will Be Removed at This Depth

 Soil at this depth contains levels of lead and/or arsenic that are above EPA's removal standards

Soil at This Depth Will Be Removed to Remove Contaminated Soil Below

Lead and/or arsenic contamination is not present above EPA's removal standards in this soil layer, but this soil will be excavated to remove underlying soils with lead and/or arsenic above EPA's removal standards.

Soil Will Not Be Removed at this Depth

Lead contamination levels are below EPA's removal standards.

If you have any questions, please contact:

Michael Berkoff

U.S. EPA Remedial Project Manager 312-353-8983

Janet Pope

U.S. EPA Community Involvement Coordinator 312-353-0628